

PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/542927

REC'D 24 JUN 2005

WIPO

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Applicant's or agent's file reference Case 21585	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/10685	International filing date (day/month/year) 25.09.2003	Priority date (day/month/year) 03.02.2003
International Patent Classification (IPC) or both national classification and IPC A61K7/42		
Applicant ROCHE VITAMINS AG		



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 15.07.2004	Date of completion of this report 22.06.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840	Authorized Officer Pelli Wablat, B Telephone No. +49 30 25901-335 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/10685

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-25 as originally filed

Claims, Numbers

1-8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/10685

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	4
	No: Claims	1-3, 5-8
Inventive step (IS)	Yes: Claims	
	No: Claims	1-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Art. 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D2: WO-A-00/71084

1. Novelty Art. 33(2)PCT

The subject-matter of Claim 1 is directed to a method of enhancing the photostability of an encapsulated cinnamate derivative in sunscreen compositions, by introducing in such sunscreen compositions at least one additional non-encapsulated sunscreen.

D1 discloses also a method of enhancing the photostability of a sunscreen composition which falls within the scope of protection of Claim 1 (see page 3, lines 8-20 and 24-25; page 9, last paragraph to page 10, line 2.

The additional technical features of claims 3, 5-8 are also disclosed in D1 as follows: page 7, lines 17-21 in respect of claim 3 and 5, page 4, lines 1-11 and claims 7 and 8 in respect of Claims 6-8.

Consequently the disclosure of D1 is novelty destroying with regard to Claims 1-3, 5-8 (Art. 33(2) PCT).

2. Additional remarks (Art. 5 and 6 PCT)

2.1. Present Claims 1 and 2 relate to an extremely large number of methods of enhancing the photostability of encapsulated cinnamate comprising introducing any non-encapsulated sunscreen agent. Support within the meaning of PCT Art. 6 and/or disclosure within the meaning of Art.5 is to be found, however, only for the method including the sunscreen agents mentioned on page 5, line 14-page 7, line 15 and Claims 8.

However, severe doubts exist whether any non-encapsulated sunscreen would indeed be suitable for solving the subjective problem mentioned on page 1, lines 20-22.

2.2. The term "derivatives" used in claim 1 is unclear, because it encompasses all possible compounds which are potentially derivable from cinnamic acid. The application, however, only provides support for a very limited number of such "derivatives", namely the cinnamic esters of the general formula I (see page 2, lines 23-30, and Claim 6).

2.3. The term "effective amount" introduces unclarity in Claim 1. This term does not limit the referred amount and therefore does not define clearly the claimed subject-matter.

2.4. Claims 3-5 which are directed to a method are unclear because they enclose features which characterize the encapsulated cinnamate by the process for its preparation. It is noted that it is not relevant for the scope of Claims 3-5 how the cinnamate was once prepared. If the Applicant would have considered that the technology used to prepare the encapsulated cinnamate is important, then the appropriate Claims would have been process Claims.

2.5. According to the description on page 15, table 2 and page 16, lines 1-5 a significant decrease of photostability is observed by using an encapsulated cinnamate compared to a free cinnamate in an emulsion. However it appears contradictory that a **protected** cinnamate undergoes a photodecomposition reaction while a **free** cinnamate does not.